

The abundance of available setting parameters normally allows the same raw image supplied by the x-ray detector to be refined into final images that can significantly differ with regard to their optical appearance. However, the expected image

- 5 appearance and the appearance that is believed to be optimal generally differ from radiologist to radiologist. This leads to individual adjustments with regard to the image refining normally having to be effected in the installation of an x-ray system, in order to adapt the final images generated by the x-ray apparatus to the taste or the precedent of the x-ray
10 department, or even to the individual radiologist.

- This adjustment process must normally be performed in close collaboration between the technicians carrying out the
15 installation and the intended users, in other words radiologists or other application specialists, particularly as the setting of the abstract parameters presupposes detailed knowledge of the image refining technology, which cannot be assumed to be the case in respect of the application
20 specialists who are as a rule medically trained. Considerable resource requirements in terms of personnel and time are therefore associated with installation of the x-ray apparatus. This is due particularly to different sets of image processing parameters having to be created for each organ (for example
25 thorax, hip, abdomen, skull, extremities, etc.) to be acquired by the x-ray apparatus, each projection (lateral, anterior-posterior, oblique, etc.), and possibly different generator settings (voltage, current, filtering, dose).

- 30 A method for the selection of equipment parameters for an x-ray device, such as tube voltage and tube current, is known

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from US 2003/0108154 A1. For selection of the equipment parameters, a sample x-ray image preselected in accordance with a user-defined parameter model is displayed to a user, which simulates an image impression of an x-ray image such as is to be expected when setting the predefined equipment parameters on the x-ray device. When a sample image is selected by the user, the assigned equipment parameters are in so doing set on the x-ray device.

Claims

1. Method for image refining of digital x-ray images in which a predetermined modification is performed on image data (B) for an x-ray image to be processed by at least one image processing module (A_i), dependent on at least one parameter (p_{ij}),
- whereby the or each parameter (p_{ij}) is supplied to the image processing module (A_i) from a current parameter set (p^{akt}),
 - whereby a plurality of standard parameter sets is stored ($p^{Nr.k}$), from which the current parameter set (p^{akt}) can be selected,
 - whereby an associated model image ($v^{Nr.k}$) can be displayed for each standard parameter set ($p^{Nr.k}$) by using stored image data,
 - whereby the selection of the standard parameter set ($p^{Nr.k}$) is effected by selecting the associated model image ($v^{Nr.k}$).
7. Image refining unit (12) for an x-ray apparatus (1), having at least one image processing module (A_i) which is designed to perform a predetermined modification of image data (B) of an x-ray image to be processed, dependent on at least one parameter (p_{ij}), having a model memory (29) in which a plurality of standard parameter sets ($p^{Nr.k}$) is stored from which the current parameter set (p^{akt}) can be selected, having an image model memory (30) in which image data (B) is stored, the use of which allows an associated model image ($v^{Nr.k}$) to be displayed for each standard parameter set ($p^{Nr.k}$), whereby a model image ($v^{Nr.k}$) can be selected and the selection of the associated standard parameter set ($p^{Nr.k}$) is effected through selection of the model image ($v^{Nr.k}$).